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Medicare: Use of short-stay hospital inpatient services, by principal diagnosis: 1983-84

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Overview

This *Note* presents Medicare short-stay hospital inpatient program data highlighting the substantial changes in the most frequently reported principal diagnoses for 1984 as compared with 1983. These recorded differences in the use of short-stay hospital services by principal diagnosis probably reflect, to a large degree, changes related to more stringent adherence to medical coding guidelines and conventions. This resulted from the enactment and implementation of the Medicare prospective payment system (PPS).

The principal diagnosis is the condition determined after study to be chiefly responsible for admission of the patient. The medical coder assigns the principal diagnostic code based on a narrative written by the attending physician to describe the disease, disorder, or condition of the patient. The diagnostic code is assigned by the medical coder using established coding guidelines and conventions from the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM). The purpose of the ICD-9-CM is to assure that a common classification of diseases and related entities is being used across the country by all agencies, institutions, and geopolitical jurisdictions to facilitate more meaningful clinical and statistical comparisons of health care data. The providers and users of the information based on this classification will also have the assurance that these volumes represent the best contemporary thinking of clinicians, nosologists, and statisticians (White, 1980).

The ICD-9-CM coding manual was developed by a panel of health care experts. Each diagnostic code is a

three to five digit numeric or alpha/numeric code assigned to identify a specific disease, disorder, or condition. Related codes, when aggregated, form categories referred to as major classifications. For example, the individual codes related to a variety of heart diseases or conditions would be included in diseases of the circulatory system, which is one of the 17 major classifications. Two of these major classifications are not applicable, for the most part, to Medicare patients.

Background

There is substantial interest and demand throughout the Health Care Financing Administration (HCFA) and the entire health care community for Medicare diagnostic program data. This is related, in part, to the enactment by Congress (Public Law 98-21) and the subsequent implementation by HCFA of the new Medicare PPS, effective October 1, 1983.

PPS was developed and instituted in response to soaring Medicare program expenditures and the corresponding challenge to the financial integrity of Medicare. This law contained sweeping revisions that radically restructured the payment system in which participating short-stay hospitals are reimbursed for inpatient services rendered to Medicare beneficiaries. PPS replaced, for the most part, the traditional system of cost-based reimbursement that provided no incentive for hospitals to practice cost-containment. In contrast, PPS is designed to encourage hospitals to keep costs down.

HCFA, through its fiscal intermediaries, pays short-stay hospitals participating in PPS for inpatient services rendered to Medicare beneficiaries at a predetermined, fixed rate per discharge according to the diagnosis-related group (DRG) code assigned to each patient. The DRG system classifies patients on the basis of the ICD-9-CM principal diagnosis and other selected demographic and utilization characteristics into clinically coherent and homogeneous groups in terms of resource consumption. The DRG "... approach to health care reimbursement operates on the principle that patients with similar medical conditions should receive similar care and use approximately the same amount of resources; therefore, the hospital should be reimbursed the same amount. While there is variation in resource consumption among individuals within a diagnosis-related group, these are expected to balance across all patients" (Pokras, 1980).

NOTE: The statistical files are developed and maintained by the Office of Statistics and Data Management in the Bureau of Data Management and Strategy. Programming services for table production were provided by Diana Murphy and Thaddeus Holmes.

The patient's principal diagnosis is paramount in determining the DRG code, and subsequent payment, for each Medicare beneficiary. With the inception of PPS, HCFA has made an extensive effort to enhance the availability and quality of diagnostic data by coding as many as five diagnoses on every Medicare billing form (HCFA-1450). HCFA has also made a major effort to assure adherence to medical coding guidelines and conventions. For example, discharges with the principal diagnosis of maintenance chemotherapy (ICD-9-CM V58.1) more than doubled from 1983 (39,659) to 1984 (83,795). Before PPS, and under less stringent guidelines, maintenance chemotherapy had not been coded as a principal diagnosis. Instead, the site or type of the neoplasm being treated was accepted as the principal diagnosis, in lieu of the chemotherapy treatment itself.

Another example of more stringent adherence to medical coding guidelines within PPS focuses on the principal diagnosis of respiratory failure (ICD-9-CM 799.1). The number of Medicare discharges rose from 32,055 in 1983 to 60,335 in 1984, an 88-percent increase. This increase was because of a medical coding guideline anomaly that HCFA is taking steps to correct. Adherence to established coding guidelines has also probably caused a large increase in the number of patients discharged with ICD-9-CM 250.91, diabetes with unspecified complication (juvenile onset). Prior to the implementation of PPS, there was no incentive to differentiate between adult and juvenile onset diabetes. As shown in Table 4, the percent change in the number of discharges from 1983 (20,740) to 1984 (46,715) for this diagnostic code was a 125.2-percent increase, the largest of any ICD-9-CM code.

HCFA has made a concerted effort to increase the specificity in the coding of Medicare diagnostic data. The reporting of the unknown diagnostic code (ICD-9-CM 799.9) decreased substantially from 268,000 in 1983 to 23,300 in 1984, a difference of 244,700 discharges, or 91 percent. Similarly, the reporting of unspecified codes declined for many of the most frequently reported conditions. For example, the number of discharges with essential hypertension, unspecified (ICD-9-CM 401.9) decreased more than 50 percent, declining from 83,600 in 1983 to 41,200 in 1984.

Presumably, PPS has also stimulated a change in medical practices. For example, the number of discharges with the principal diagnosis of cataract, unspecified (ICD-9-CM 366.9) declined from 248,200 in 1983 to 144,600 in 1984, a decrease of 42 percent. This substantial difference may be related to the physician's choice of an alternative treatment site, such as a hospital outpatient or freestanding facility.

Highlights

Number of discharges

Table 1

- From 1983 to 1984, the number of Medicare discharges declined from 11.5 million to 10.9 million, nearly 6 percent. This figure represents the first

annual decrease in the number of short-stay hospital inpatient stays since the inception of the Medicare program.

- The 10 leading principal diagnoses (Table 1) are based on those conditions occurring most frequently during 1984. These diagnoses accounted for about 18 percent of all discharges in 1983 and 1984, respectively (not shown in the table).
- Congestive heart failure (ICD-9-CM 428.0) was the leading principal diagnosis, accounting for about 3.6 percent in 1983 and 4.2 percent in 1984 (not shown in the table).
- Other principal diagnostic conditions were pneumonia, organism unspecified (ICD-9-CM 486); acute but ill-defined, cerebrovascular disease (ICD-9-CM 436); hyperplasia of prostate (ICD-9-CM 600); and, other and unspecified angina pectoris (ICD-9-CM 413.9). These four conditions accounted for about 7 percent of all discharges (not shown in the table).
- Intermediate coronary syndrome (ICD-9-CM 411.1) showed the largest increase (75 percent) in the number of discharges, rising from 95,500 in 1983 to 166,700 in 1984.
- Unspecified cataract (ICD-9-CM 366.9) showed the largest decrease (42 percent) in the number of discharges between 1983 (248,300) and 1984 (144,600).

Average length of stay

Table 2

- The 10 leading principal diagnoses (Table 2) are based on those conditions with the highest average length of stay (ALOS) for Medicare beneficiaries discharged from short-stay hospitals during 1984.
- The ALOS for all Medicare discharges decreased from 9.8 days in 1983 to 8.9 days in 1984, a difference of 9.9 percent. As a result of the decrease in the number of discharges, and the ALOS between 1983 and 1984, the total days of care declined substantially from 113.1 million to 96.9 million, a difference of 14 percent (not shown in the table).
- The decrease in ALOS between 1983 and 1984 (9.9 percent) was fairly uniform for the leading diagnoses, ranging from about 6 percent for unspecified part of neck of femur, closed fracture (ICD-9-CM 820.8) to approximately 20 percent for cerebral thrombosis (ICD-9-CM 434.0).
- In terms of ALOS, the leading principal diagnoses for 1984 were: unspecified part of neck of femur, closed fracture (ICD-9-CM 820.8) 18.0 days; pertrachanteric closed fracture; intertrochanteric section (ICD-9-CM 820.21) 15.8 days; and other transcervical closed fracture of femur (ICD-9-CM 820.09) 15.1 days.

Average charge per discharge

Table 3

- The 10 leading principal diagnoses (Table 3) are based on those conditions with the highest average charge per discharge for Medicare beneficiaries discharged from participating short-stay hospitals during 1984.

- The average charge per discharge for all Medicare short-stay hospital beneficiaries increased slightly (2.2 percent) from 1983 (\$4,753) to 1984 (\$4,859). Total Medicare short-stay hospital charges, however, declined slightly (3.5 percent) from 1983 (\$54.8 billion) to 1984 (\$52.9 billion), reflecting the decrease in the number of discharges and average length of stay (not shown in the table).
- The highest average charges per discharge in 1984 were for respiratory failure (ICD-9-CM 799.1) \$9,929; sinoatrial node dysfunction (ICD-9-CM 427.81) \$8,947; and unspecified part of neck of femur, closed fracture (ICD-9-CM 820.8) \$8,772.
- The percent change in the average charge per discharge from 1983 to 1984 was somewhat similar to that for all diagnoses (2.2 percent), with one major exception. The average charge per discharge for beneficiaries with coronary atherosclerosis (ICD-9-CM 414.0) increased from \$5,893 in 1983 to \$8,099 in 1984, a rise of 37 percent.
- days); and injury and poisoning (10.6 days). The classification with the shortest ALOS was diseases of the nervous system and sense organs (4.6 days).
- The decrease in ALOS from 1983 to 1984 (9.9 percent) was fairly uniform among the major classifications, with one exception; supplementary classification of factors influencing health status and contact with health service showed a drop of nearly 22 percent (from 7.5 days to 5.8 days).
- Among the major classifications, the change in the average charge per discharge between 1983 and 1984 (2.2 percent) was fairly uniform. The only large relative changes involved an increase of about 15 percent (from \$4,444 to \$5,128) for congenital anomalies and a decrease of about 11 percent (from \$3,427 to \$3,052) for supplementary classification of factors influencing health status and contact with health services.

Classification use and charges

Table 4

- There were substantial changes in the use of Medicare short-stay hospitals inpatient services from 1983 to 1984 as measured by the major ICD-9-CM classifications.
- Short-stay hospital inpatient use is highly clustered when the principal diagnosis of Medicare inpatients are grouped into 15 major classifications of diseases. Two major ICD-9-CM classifications: complications of pregnancy, childbirth, and the puerperium; and certain conditions originating in the perinatal period, are not, for the most part, applicable to Medicare patients.
- Four major classifications accounted for 6.2 million Medicare discharges, or about 57 percent of all Medicare discharges and days of care, respectively.
- One of the major classifications, diseases of the circulatory system, accounted for an estimated 2.9 million discharges, or nearly 27 percent of all Medicare discharges from short-stay hospitals during 1984.
- Three major classifications with large frequencies during 1984 were diseases of the digestive system (1.3 million discharges or 12.0 percent of all discharges); diseases of the respiratory system (1.0 million discharges or 9.2 percent); and neoplasms (1.0 million discharges or 9.0 percent).
- Among the 15 major classifications, the largest relative increase in the number of discharges between 1983 and 1984 was incurred for supplementary classification of factors influencing health status and contact with health services (29 percent), and for infectious and parasitic diseases (19 percent). In contrast, the largest relative decrease was recorded for congenital anomalies (31 percent) and diseases of the nervous system (13 percent).
- ALOS varied considerably among the 15 major classifications during 1984. The classifications with the longest ALOS were mental disorders (13.3 days); diseases of the skin and subcutaneous tissue (12.2

Conclusion

In summary, this report focuses on the changes, by principal diagnosis, in the use of Medicare short-stay hospital services from 1983 to 1984. With the inception of PPS, most of these differences probably relate to more stringent adherence to medical coding guidelines and conventions. Additionally, PPS incentives have developed which most likely influence medical practice patterns. Therefore, it is important that an extensive examination and study of all aspects of the data be undertaken before analyzing diagnostic utilization patterns or attempting to measure the impact of PPS.

Technical notes

Sources and limitations of data

The data shown in this report are derived from the HCFA short-stay hospital inpatient stay record file. This file is generated by linking information from three HCFA master program files: the utilization bill file, the health insurance entitlement file, and the provider of services file. The statistical stay record provides information on the patient, the hospital, and the hospitalization.

Three types of limitations should be considered when analyzing the data shown in the tables: sampling variability, administrative time lag, and changes in the medical reporting and practices.

First, the data presented are based on records contained in the HCFA 20-percent short-stay hospital inpatient stay record file, and are subject to sampling variability. Sample counts are multiplied by a factor of five to estimate population totals.

The second data limitation is the incompleteness of the 1983-84 stay record files. This is a result of the administrative time lag between the time a bill is submitted for payment and is posted to the central records. The processing cutoff date for the 1983 and 1984 data was December 1984 and December 1985. Discharges for 1983-84 recorded after these dates are not included. A complete count of Medicare discharges from short-stay hospitals during that timeframe is probably about 3 percent more than the total figures used in this report.

Lastly, the most important limitation of the data is that changes in use by principal diagnosis may reflect, to some extent, strict adherence to ICD-9-CM coding guidelines, changes in the information contained in the billing system, changes in medical practices, and changes in incentives to report, rather than real changes in the diagnoses or procedures (which determine the DRG). As a result, caution should be used in interpreting the data presented in this report.

The principal diagnosis is the condition determined to be responsible for the hospitalization of the patient and is recorded by the medical coder on each short-stay hospital bill for inpatient services rendered to Medicare beneficiaries. The medical coder's selection of the principal diagnosis code is based on a narrative written by the attending physician to describe the disease, disorder, or condition of the patient. The diagnostic code itself is selected from the ICD-9-CM and is a three-to-five digit numeric or alpha/numeric code developed by a panel of health care experts to ascribe specificity for a disease, disorder, or condition. Related codes, when aggregated, form categories called major ICD-9-CM classifications.¹

Definitions

Day of care—A day of inpatient hospital care during which services were furnished to a person eligible for hospital insurance benefits. The day of discharge is not counted as a day of care.

Discharge—The formal release of a patient from a hospital. Discharges include persons who died during their hospitalization or were transferred to another hospital.

Average length of stay—The total number of days of inpatient short-stay hospital care divided by the number of discharged patients. A hospital stay of less than a day (an admission and discharge in the same day) is counted as 1 day.

Short-stay hospitals—Those hospitals where the average total length of stay is less than 25 days. General and special hospitals are included in this category.

Total hospital charges—The hospitals' charge for room, board, and ancillary services as recorded on the billing form (HCFA 1450 or HCFA 1453).

Principal diagnosis—All diagnostic information shown in these tables are classified according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM). Three, four, or five digit codes are assigned for each principal diagnosis. The principal diagnosis is defined as the condition established after study to be chiefly responsible for the admission of the patient to the hospital.

References

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Table 1

Number of Medicare discharges from short-stay hospitals and percent change, by ICD-9-CM¹ codes: 1983-84

ICD-9-CM codes ²	Principal diagnosis	Number of discharges		Percent change 1983-84 ³
		1983	1984	
—	All diagnoses	11,537,855	10,886,570	-5.6
428.0	Congestive heart failure	411,270	462,600	12.5
486	Pneumonia, organism, unspecified	234,375	224,190	-4.4
436	Acute but ill-defined, cerebrovascular disease	221,865	179,975	-18.9
600	Hyperplasia of prostate	186,385	179,810	-3.5
413.9	Other and unspecified angina pectoris	160,875	171,695	6.7
411.1	Intermediate coronary syndrome	95,465	166,735	74.7
496	Chronic airway obstruction	216,090	155,515	-28.0
366.9	Unspecified cataract	248,280	144,575	-41.8
435.9	Unspecified transient cerebral ischemia	127,445	135,215	6.1
366.10	Senile cataract, unspecified	109,725	123,370	12.4
—	Other	9,526,080	8,942,980	-6.1

¹Diagnostic codes were derived from the *International Classification of Diseases, 9th Revision, Clinical Modification*.

²The ICD-9-CM codes are based on frequency of occurrence during 1984.

³The percent change is based on unrounded data.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

¹Additional information on the ICD-9-CM classifications codes is available from the authors.

Table 2

Average length of stay for Medicare discharges from participating short-stay hospitals and percent change, by ICD-9-CM¹ codes: 1983-84

ICD-9-CM codes ²	Principal diagnosis	Average length of stay		Percent change 1983-84 ³
		1983	1984	
—	All diagnoses	9.8	8.9	-9.9
820.8	Unspecified part of neck of femur, closed fracture	19.2	18.0	-6.1
820.21	Pertrochanteric closed fracture intertrochanteric section	18.1	15.8	-13.0
820.09	Other transcervical closed fracture of femur	17.0	15.1	-11.7
436	Acute but ill-defined, cerebrovascular disease	15.7	13.6	-13.4
434.9	Cerebral artery occlusion, unspecified	15.1	12.6	-16.8
715.96	Osteoarthritis of lower leg, generalized or localized, unspecified	13.5	12.3	-8.7
444.22	Arterial embolism and thrombosis of the lower extremity	13.3	11.9	-11.0
434.0	Cerebral thrombosis	14.8	11.8	-20.5
799.1	Respiratory failure	13.0	11.7	-10.1
410.1	Acute myocardial infarction of other anterior wall	11.9	10.9	-8.1
—	Other	9.1	8.1	-11.0

¹Diagnostic codes were derived from the *International Classification of Diseases, 9th Revision, Clinical Modification*.

²The ICD-9-CM codes are based on those conditions with the highest average length of stay during 1984.

³The percent change is based on unrounded data.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

Table 3

Average charge per discharge for Medicare beneficiaries discharged from participating short-stay hospitals and percent change, by ICD-9-CM¹ codes: 1983-84

ICD-9-CM codes ²	Principal diagnosis	Average charge per discharge		Percent change 1983-84 ³
		1983	1984	
—	All diagnoses	\$4,753	\$4,859	2.2
799.1	Respiratory failure	10,198	9,929	-2.6
427.81	Sinoatrial node dysfunction	8,881	8,947	0.8
820.8	Unspecified part of neck of femur, closed fracture	8,465	8,772	3.6
715.96	Osteoarthritis of lower leg, generalized or localized, unspecified	7,776	8,419	8.3
414.0	Coronary atherosclerosis	5,893	8,099	37.4
820.21	Pertrochanteric closed fracture intertrochanteric section	8,113	8,057	-0.7
820.09	Other transcervical closed fracture of femur	7,751	7,992	3.1
444.22	Arterial embolism and thrombosis of the lower extremity	8,076	7,942	-1.7
410.1	Acute myocardial infarction of other anterior wall	7,126	7,515	5.5
414.9	Chronic ischemic heart disease, unspecified	7,111	7,373	3.7
—	Other	4,372	4,429	1.3

¹Diagnostic codes were derived from the *International Classification of Diseases, 9th Revision, Clinical Modification*.

²The ICD-9-CM codes are based on the highest average charge per discharge during 1984.

³The percent change is based on unrounded data.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical System.

Table 4

Number of Medicare discharges, average length of stay, and average charge per discharge from participating short-stay hospitals, by ICD-9-CM¹ classification: 1983-84

ICD-9-CM classification	ICD-9-CM codes	1983				1984				Percent change 1983-84 ²		
		Discharges		Average length of stay	Average charge per discharge	Discharges		Average length of stay	Average charge per discharge	Discharges	Average length of stay	Average charge per discharge
		Number	Percent			Number	Percent					
Total, all diagnoses	—	11,537,855	100.0	9.8	4,753	10,886,570	100.0	8.9	4,859	-5.6	-9.9	2.2
Infectious and parasitic diseases	001-139	130,680	1.1	11.3	5,518	156,090	1.4	10.3	5,818	19.4	-8.8	5.4
Neoplasms	140-239	1,073,295	9.3	11.4	5,672	980,355	9.0	10.6	5,988	-8.7	-6.6	5.6
Bronchus and lung, unspecified	162.9	106,805	0.9	11.6	5,614	67,415	0.6	10.7	5,698	-36.9	-7.4	1.5
Breast (female), unspecified	174.9	61,265	0.5	10.3	4,541	38,745	0.4	9.2	4,485	-36.8	-11.0	-1.2
Malignant neoplasm of prostate	185	96,675	0.8	9.7	4,367	91,580	0.8	8.6	4,343	-5.3	-11.6	-0.5
Bladder, part unspecified	188.9	54,805	0.5	8.2	4,236	39,160	0.4	7.5	4,334	-28.5	-8.8	2.3
Other	—	753,745	6.5	11.9	6,044	743,455	6.8	11.1	6,383	-1.4	-6.5	5.6
Endocrine, nutritional, and metabolic diseases, and immunity disorders	240-279	415,725	3.6	10.5	4,189	397,080	3.6	9.3	4,061	-4.5	-11.6	-3.0
Diabetes with unspecified complication (adult onset or unspecified as to type)	250.90	44,640	0.4	9.7	3,477	39,000	0.4	8.3	3,041	-12.6	-14.6	-12.5
Diabetes with unspecified complication (juvenile onset)	250.91	20,740	0.2	9.9	3,263	46,715	0.4	8.3	3,053	125.2	-16.0	-6.4
Volume depletion	276.5	69,470	0.6	11.4	4,516	103,205	1.0	9.3	3,855	48.6	-18.5	-14.6
Other	—	280,875	2.4	10.4	4,289	208,160	1.9	9.6	4,581	-25.9	-7.2	6.8
Diseases of the blood and blood-forming organs	280-289	130,865	1.1	8.8	3,869	122,225	1.1	7.6	3,709	-6.6	-14.5	-4.1
Mental disorders	290-319	297,980	2.6	14.0	4,144	289,855	2.7	13.3	4,266	-2.7	-4.9	2.9
Diseases of the nervous system and sense organs	320-389	777,370	6.7	4.9	2,829	674,835	6.2	4.6	2,997	-13.2	-6.5	5.9
Senile cataract, unspecified	366.10	109,725	1.0	2.5	2,187	123,370	1.1	2.2	2,336	12.4	-12.8	6.8
Total or mature cataract	366.17	33,025	0.3	2.6	2,263	30,415	0.3	2.3	2,407	-7.9	-12.2	6.3
Unspecified cataract	366.9	248,280	2.1	2.6	2,240	144,575	1.3	2.3	2,418	-41.8	-10.3	7.9
Other	—	386,340	3.3	7.3	3,438	376,475	3.5	6.4	3,484	-2.6	-11.4	1.3
Diseases of the circulatory system	390-459	2,967,205	25.7	10.1	5,392	2,933,305	26.9	9.0	5,457	-1.1	-11.1	1.2
Essential hypertension, unspecified	401.9	83,640	0.7	7.6	3,043	41,160	0.4	6.6	2,768	-50.8	-12.5	-9.0
Acute myocardial infarction of other anterior wall	410.1	46,615	0.4	11.9	7,126	71,125	0.6	10.9	7,515	52.6	-8.1	5.5
Acute myocardial infarction of other inferior wall	410.4	44,775	0.4	11.9	6,972	65,660	0.6	10.9	7,356	46.6	-8.9	5.5
Subendocardial infarction	410.7	29,770	0.3	11.6	6,326	47,780	0.4	10.6	6,644	60.5	-9.0	5.0
Acute myocardial infarction, unspecified site	410.9	133,630	1.2	10.8	6,349	82,645	0.8	9.7	6,184	-38.2	-9.7	-2.6

Table 4—Continued

Number of Medicare discharges, average length of stay, and average charge per discharge from participating short-stay hospitals, by ICD-9-CM¹ classification: 1983–84

ICD-9-CM classification	ICD-9-CM codes	1983				1984				Percent change 1983–84 ²		
		Discharges		Average length of stay	Average charge per discharge	Discharges		Average length of stay	Average charge per discharge	Discharges	Average length of stay	Average charge per discharge
		Number	Percent			Number	Percent					
Intermediate cor- onary syndrome	411.1	95,465	0.8	7.8	4,857	166,735	1.5	6.8	4,778	74.7	-13.2	-1.6
Other acute and subacute forms of ischemic heart disease	411.3	44,690	0.4	7.9	3,842	51,430	0.5	6.7	3,641	15.1	-14.7	-5.2
Other and unspecified angina pectoris	413.9	160,875	1.4	6.3	3,444	171,695	1.6	5.3	3,249	6.7	-15.1	-5.7
Coronary atherosclerosis	414.0	207,475	1.8	8.8	5,893	123,400	1.1	8.1	8,099	-40.5	-7.5	37.4
Chronic ischemic heart disease, unspecified	414.9	81,510	0.7	8.6	7,111	45,995	0.4	7.8	7,373	-43.6	-8.6	3.7
Atrial fibrillation	427.31	79,630	0.7	7.6	3,805	86,750	0.8	6.5	3,563	8.9	-14.4	-6.4
Sinoatrial node dysfunction	427.81	28,960	0.2	9.2	8,881	34,810	0.3	8.2	8,947	20.2	-10.5	0.8
Other rhythm disorders	427.89	28,635	0.2	7.2	4,235	37,580	0.4	6.2	3,886	31.2	-14.0	-8.2
Cardiac dysrhythmia, unspecified	427.9	46,925	0.4	8.2	4,348	33,710	0.3	7.1	3,746	-28.2	-13.2	-13.9
Congestive heart failure	428.0	411,270	3.6	10.5	4,837	462,600	4.2	9.2	4,621	12.5	-12.9	-4.5
Left heart failure	428.1	27,945	0.2	9.9	5,387	45,505	0.4	8.9	5,210	62.8	-10.3	-3.3
Occlusion and stenosis of carotid artery	433.1	53,105	0.5	8.9	5,764	61,660	0.6	7.8	5,603	16.1	-12.7	-2.8
Cerebral thrombosis	434.0	19,945	0.2	14.8	5,263	33,595	0.3	11.8	4,932	68.4	-20.5	-6.3
Cerebral artery occlusion, unspecified	434.9	37,920	0.3	15.1	6,480	69,495	0.6	12.6	6,186	83.3	-16.8	-4.5
Unspecified tran- sient cerebral ischemia	435.9	127,445	1.1	7.6	2,902	135,215	1.2	6.4	2,744	6.1	-15.0	-5.4
Acute but ill- defined, cerebrovascular disease	436	221,865	1.9	15.7	6,334	179,975	1.6	13.6	5,898	-18.9	-13.4	-7.1
Arterial embolism and thrombosis of the lower extremity	444.22	30,255	0.3	13.3	8,076	38,315	0.4	11.9	7,942	26.6	-11.0	-1.7
Other	—	924,860	8.0	10.5	5,807	846,470	7.8	9.6	6,170	-8.5	-8.6	6.3
Diseases of the respiratory system	460-519	1,045,705	9.1	9.8	4,737	1,002,225	9.2	8.8	4,768	-4.2	-9.5	0.7
Acute bronchitis	466.0	86,315	0.8	8.1	3,356	100,740	0.9	7.3	3,440	16.7	-9.4	2.5
Pneumococcal pneumonia	481	25,350	0.2	10.6	5,181	34,295	0.3	9.2	4,987	35.3	-12.7	-3.7
Bronchopneu- monia, organism unspecified	485	35,170	0.3	10.6	4,540	37,135	0.3	9.3	4,439	5.6	-12.2	-2.2
Pneumonia, organism, unspecified	486	234,375	2.0	11.1	5,290	224,100	2.1	9.8	5,064	-4.4	-12.1	-4.3
Asthma, unspecified- without status asthmaticus	493.90	64,105	0.6	7.9	3,649	62,330	0.6	7.1	3,561	-2.8	-10.3	-2.4
Chronic airway obstruction, not elsewhere classified	496	216,090	1.9	10.0	5,137	155,515	1.4	9.1	5,041	-28.0	-9.3	-1.9
Other	—	384,300	3.3	9.3	4,654	388,110	3.6	8.8	5,040	1.0	-5.9	8.3

Table 4—Continued

Number of Medicare discharges, average length of stay, and average charge per discharge from participating short-stay hospitals, by ICD-9-CM¹ classification: 1983–84

ICD-9-CM classification	ICD-9-CM codes	1983				1984				Percent change 1983–84 ²		
		Discharges		Average length of stay	Average charge per discharge	Discharges		Average length of stay	Average charge per discharge	Discharges	Average length of stay	Average charge per discharge
		Number	Percent			Number	Percent					
Diseases of the digestive system	520-579	1,335,185	11.6	9.0	4,466	1,300,630	12.0	8.2	4,552	-2.6	-9.2	1.9
Inguinal hernia without obstruction or gangrene - unilateral or unspecified not recurrent	550.90	73,560	0.6	5.4	2,468	73,310	0.7	4.5	2,391	-0.3	-15.6	-3.1
Other and unspecified noninfectious gastroenteritis and colitis	558.9	96,995	0.8	7.0	2,554	89,065	0.8	6.1	2,386	-8.2	-13.0	-6.6
Unspecified intestinal obstruction	560.9	49,040	0.4	12.2	6,594	45,990	0.4	10.0	5,645	-6.2	-17.5	-14.4
Diverticulitis of colon	562.10	56,055	0.5	7.5	3,349	41,435	0.4	6.9	3,490	-26.1	-8.4	4.2
Diverticulosis of colon	562.11	61,240	0.5	9.6	4,692	67,500	0.6	9.0	4,744	10.2	-6.7	1.1
Calculus of gallbladder with acute cholecystitis - without obstruction	574.00	22,900	0.2	11.7	6,317	36,960	0.3	10.4	6,301	61.4	-11.5	-0.3
Calculus of gallbladder with other cholecystitis - without obstruction	574.10	61,550	0.5	11.0	5,507	68,660	0.6	9.8	5,331	11.6	-11.5	-3.2
Hemorrhage of gastrointestinal tract, unspecified	578.9	82,100	0.7	9.7	5,453	82,695	0.8	8.4	4,833	0.7	-13.4	-11.4
Other	—	831,745	7.2	9.2	4,573	795,015	7.3	8.4	4,793	-4.4	-8.2	4.8
Diseases of the genitourinary system	580-629	770,650	6.7	8.5	4,138	717,535	6.6	7.6	4,124	-6.9	-10.4	-0.3
Urinary tract infection, site not specified	599.0	108,500	0.9	9.9	3,968	107,365	1.0	8.9	3,993	-1.0	-9.5	0.6
Hyperplasia of prostate	600	186,385	1.6	8.2	3,809	179,810	1.6	7.2	3,790	-3.5	-11.5	-0.5
Other	—	475,765	4.1	8.3	4,305	430,360	4.0	7.5	4,296	-9.5	-10.4	-0.2
Diseases of the skin and subcutaneous tissue	680-709	153,915	1.3	13.6	5,326	153,755	1.4	12.2	5,293	-0.1	-10.6	-0.6
Cellulitis and abscess of foot (excludes toe)	682.6	29,685	0.3	11.5	4,388	35,870	0.3	10.3	4,366	20.8	-10.4	-0.5
Other	—	124,230	1.1	14.1	5,550	117,885	1.1	12.7	5,576	-5.1	-9.7	0.5
Diseases of the musculoskeletal system and connective tissue	710-739	563,615	4.9	10.5	4,604	530,460	4.9	9.5	4,910	-5.9	-9.3	6.7
Osteoarthritis of lower leg, generalized or localized, unspecified	715.96	29,905	0.3	13.5	7,776	33,305	0.3	12.3	8,419	11.4	-8.7	8.3
Pathological fracture	733.1	23,920	0.2	12.6	4,314	38,430	0.4	10.8	4,199	60.7	-14.0	-2.7
Other	—	509,790	4.4	10.2	4,431	458,725	4.2	9.2	4,715	-10.0	-10.0	6.4
Congenital anomalies	740-759	23,455	0.2	8.0	4,444	16,270	0.2	7.6	5,128	-30.6	-5.6	15.4

Table 4—Continued

Number of Medicare discharges, average length of stay, and average charge per discharge from participating short-stay hospitals, by ICD-9-CM¹ classification: 1983–84

ICD-9-CM classification	ICD-9-CM codes	1983				1984				Percent change 1983–84 ²		
		Discharges		Average length of stay	Average charge per discharge	Discharges		Average length of stay	Average charge per discharge	Discharges	Average length of stay	Average charge per discharge
		Number	Percent			Number	Percent					
Symptoms, signs, and ill-defined conditions	780-799	647,570	5.6	8.3	4,068	610,845	5.6	7.5	4,189	-5.7	-10.3	3.0
Syncope or collapse	780.2	78,980	0.7	6.6	3,016	88,265	0.8	5.9	2,947	11.8	-9.9	-2.3
Convulsions	780.3	38,875	0.3	8.2	3,650	38,565	0.4	7.3	3,597	-0.8	-11.2	-1.5
Chest pain, unspecified	786.50	86,910	0.8	5.7	2,920	76,900	0.7	4.6	2,638	-11.5	-20.0	-9.7
Abdominal pain	789.0	70,090	0.6	7.2	3,223	54,865	0.5	6.1	2,770	-21.7	-15.8	-14.1
Respiratory failure	799.1	32,055	0.3	13.0	10,198	60,335	0.6	11.7	9,929	88.2	-10.1	-2.6
Other	—	340,660	3.0	9.2	4,249	291,915	2.7	8.1	4,131	-14.3	-11.8	-2.8
Injury and poisoning	800-999	783,980	6.8	12.0	5,422	807,750	7.4	10.6	5,474	3.0	-11.9	1.0
Transcervical closed fracture of femur (head of femur, subcapita)	820.09	27,625	0.2	17.0	7,751	41,540	0.4	15.1	7,992	50.4	-11.7	3.1
Petrochanteric closed fracture in intertrochanteric section	820.21	60,760	0.5	18.1	8,113	79,035	0.7	15.8	8,057	30.1	-13.0	-0.7
Unspecified part of neck of femur, closed fracture	820.8	58,345	0.5	19.2	8,465	40,120	0.4	18.0	8,772	-31.2	-6.1	3.6
Other	—	637,250	5.5	10.5	4,786	647,055	5.9	9.2	4,792	1.5	-12.9	0.1
Supplementary classification of factors influencing health status and contact with health services	V01-V82	125,680	1.1	7.5	3,427	161,955	1.5	5.8	3,052	28.9	-21.8	-10.9
Maintenance chemotherapy	V58.1	39,695	0.3	3.7	1,934	83,795	0.8	3.4	2,067	111.1	-8.5	6.9
Other	—	85,985	0.8	9.2	4,116	78,160	0.7	8.5	4,108	-9.1	-7.7	-0.2
Unknown	799.9	267,955	2.3	11.8	4,885	23,315	0.2	11.7	5,307	-91.3	0.8	8.6
Other classifications	—	27,025	.02	9.7	3,608	8,085	0.1	7.7	3,801	-70.1	-20.8	5.4

¹International Classification of Diseases, 9th Revision, Clinical Modification.

²The percent change is based on unrounded data.

SOURCE: Health Care Financing Administration, Bureau of Data Management and Strategy: Data from the Medicare Statistical File.

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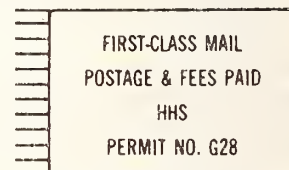
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